



June 30, 1993

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U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Gentlemen:

Attached is the Annual Operating Report for the Idaho State
University AGN-201 Nuclear Reactor, License R-110, Docket
No. 50-284, for the calendar year 1992.

Respectfully submitted,

R. David Clovis

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Reactor Supervisor

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IDAHO STATE UNIVERSITY
REACTOR ANNUAL OPERATING REPORT
FOR 1992

1. Brief Narrative of Changes:

- a. There were no changes to the facility design, performance characteristics or operating procedures relating to reactor safety during this reporting period.
- b. Results of major surveillance tests and inspections.
 - 1) Channel tests on all safety channels were performed and all scram interlocks were tested and found to be satisfactory and within specification.
 - 2) Power and period calibrations were performed with satisfactory results.
 - 3) The shield tank was inspected and no leaks or excessive corrosion were noted.
 - 4)
 - a) The control rod drive mechanisms were inspected and tested with satisfactory results.
 - b) Scram times were measured and found to be less than 120 milliseconds.
 - c) Control and safety rod worths and run-up times were measured; from these values the reactivity insertion rate was determined to be less than 0.045% per second for any rod.
 - d) The shutdown margin was determined to be greater than 1.75% with the most reactive rod fully inserted.

2. The total operating time for the reactor during 1992 was nearly 147 hours with a total thermal energy output of approximately 96 watt-hours. The monthly breakdown of operation time follows:

<u>Month</u>	<u>Hours</u>	<u>Month</u>	<u>Hours</u>
January	0.0	July	0.0
February	24.0	August	7.6
March	12.4	September	14.3
April	4.9	October	44.7
May	5.0	November	20.8
June	7.1	December	5.9

3. Unscheduled shutdowns:
There were no unscheduled shutdowns.

4. Safety related maintenance included the following:
 - a. Repaired the input cable connection from the nuclear instrument detector channels #2 and #3.
5. Changes to the Facility:
 - a. There have been no changes to the facility as described in the application for license.
 - b. There were no changes to the procedures as described in this facility's Technical Specifications.
 - c. No new or untried experiments or tests were performed during the reporting period.
6. No summary of safety evaluations are submitted at this time, because there were no changes to operating procedures, testing, or experiments to this facility during the 1992 calendar year.
7. No radiation effluents were released or discharged to the environment during 1992.
8. Neutron and beta/gamma radiation surveys performed on the exterior walls of the facility indicated that maximum combined contact radiation levels were less than 2 mrem/hr.
9. No person using the facility received a whole body exposure of greater than 50 millirem during 1992.